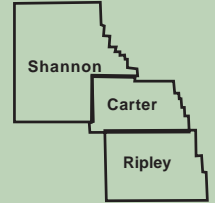




# Conservation Currents



MISSOURI DEPARTMENT OF CONSERVATION

PROJECTS, ISSUES AND PROGRAMS IN SHANNON, CARTER AND RIPLEY COUNTIES

## SPECIAL POINTS OF INTEREST:

> RECORD RAIN  
EVENT

> PYGMY  
RATTLESNAKE

> VALUABLE LOGGING  
TECHNIQUES

> EAGLES AT TWIN  
PINES

> MONEY DOES GROW  
ON TREES

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## Current Conversations

### CHARLIE THE SQUIRREL DOG

**Larry Rieken**  
**Wildlife Regional Supervisor**

Late last winter while hunting squirrels with my dog, Charlie, he treed a bobcat. It was one of those classic moments that only happen when you're spending time in the woods. After taking a few pictures of the bobcat, we left him in the tree since the fur season had already closed. Maybe we can tree the same bobcat again next year.

Charlie showed up as a small pup in our hay barn a couple of years ago. Like other land owners in the Ozarks, I've never had to buy a dog. They just show up. No one claimed Charlie, so my youngest daughter did. She likes to tell people that we didn't choose Charlie, he chose us.

Charlie and I like to hunt alone. With a busy life, I find being alone in the woods provides me the opportunity to recharge. Charlie likes to hunt alone because he hunts mostly by sight and sound, and then smell, so other dogs or people just distract him.

The number of squirrels that I would walk past if it were not for Charlie is amazing. He likes to hunt very close. I think that I accidentally trained him to do this since, on our farm, I don't have much time and he learned early on that he had to keep up with me not the other way around. Also, Charlie only barks when he has

something treed. This makes for fast action hunting.

Charlie and I like to hunt the south and west slopes that are scattered with large post oaks.

Snow melts off these slopes first and the post oaks have lots of cavities. Squirrels are cavity dwellers. I am pleased that my our foresters with the Missouri Department of Conservation leave some residual trees whenever possible while doing timber management on state land because this is good for squirrels.

Several years ago I wrote an article about squirrel hunting for this newsletter. I received more comments about that article than all the other articles that I have ever written. Several comments stated that I had forgotten to mention anything about hunting squirrels with dogs. That was an oversight that I hope I have now corrected.

It is an honor to have grown up in the in the Ozarks. My wife and I have raised 4 children in the hills. It has been wonderful for them to have the opportunity to roam around in the big woods.

If you have the opportunity, take a friend—either 2 or 4 legged— and maybe you too can experience one of those classic moments that only happen while spending time in the woods. Squirrel season opened May 24.



## Protection RECENT PRECIPITATION EVENT DEMONSTRATES THE POWER OF WATER



### Brad Hadley Conservation Agent

By now many of you have experienced some form of loss caused by the recent high water and are possibly still uncovering more damage. Damages may have been caused by a "direct hit" to your home or possibly to large round hay bales, fencing, propane tanks, trash dumpsters, or other large object that either floated away from or onto your property. The latest deluge certainly helped drive home the point that almost everyone lives "downstream" from someone else.

Another loss that may only be apparent to those of you that live or own property in certain areas is that of the soil. Best estimates of average annual soil loss in the United States give the figure of a whopping 5 tons per acre! Because practically everyone relies on products that are dependent on the presence of soil, any loss of this substance should be cause for concern, and certainly invites speculation on what causes soil losses.

So, what of the recent precipitation event? Precipitation that doesn't sink into the ground or evaporate is called surface water. Surface water becomes runoff when it flows downhill to the next stream. This runoff carries dissolved substances and sediment (soil). All

the land in a given area that that "drains" runoff to a particular stream is called a watershed. Understanding that, let's consider a single watershed easily recognized by many of us - that of Mahan Creek.

As the accompanying map shows, Mahan Creek watershed "ends" where Mahan Creek dumps into the Jacks Fork just north of the 106 bridge in West Eminence. This watershed's southern boundary loosely falls close to Highway 60, with its eastern boundary following the locally known "CC Road" to Highway 19 near Winona and its western boundary starting near Birch Tree just west of first Dry Camp Hollow and then Pine Hollow back to along the Iron Stake road area. Mahan Creek watershed is not a particularly large one, but still encompasses some 36,572 acres.

Now let's consider how that land area translates relative to the recent precipitation. Let's use the figure of 9 inches of rain across the area. This amount of rain calculates to 27,429 acrefeet of water. That doesn't say much until you figure that 1 acre-foot of water equals 325,850 gallons of water, which means the recent precipitation deposited around 8.9 billion gallons of water in this watershed. But what does that mean? Well, that volume of water would fill a lake 2 miles long and 1 mile wide to a depth of a little over 21 feet! That's right, a lake of 2 square miles would cover an area of 1,280 acres in over 21 feet of water, but, perhaps as importantly, that water would have a weight of 74.5 billion pounds!

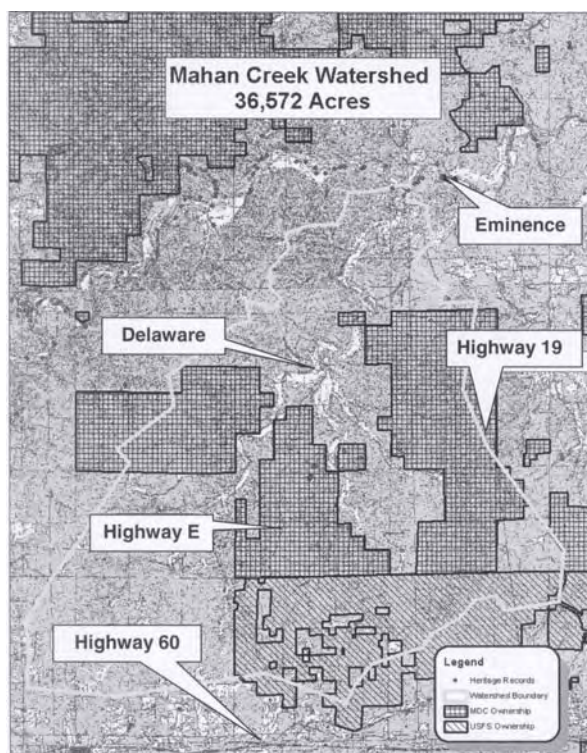
Not all precipitation becomes runoff - some is taken up by plants and some is absorbed by the soil until the soil becomes saturated. So, a significant runoff event is more likely when a heavy rain follows a relatively recent wet period - which is what we've just experienced (two months of record-producing precipitation in a row). Also, steepness of terrain and type of vegetation impact the amount and velocity of runoff. In general, forested areas absorb more precipitation than non-forested areas and they also tend to reduce runoff velocity.

Keeping this in perspective, Mahan Creek watershed experienced a very heavy runoff period. If we consider that perhaps 50% of the precipitation

*"...forested areas  
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*"...that volume of  
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feet!"*





was absorbed, the area still had to “drain” half the amount of water in the above fictional lake, or around 4.45 billion gallons of water weighing some 37.25 billion tons. It is this volume and weight of water, amplified by the steepness of an area, which can inflict damage including carrying large round hay bales, fencing, propane tanks, trash dumpsters, or other large objects “downstream”. Marginally protected soils just don’t have a chance of staying

in place and will ultimately end up in the Gulf of Mexico.

The Missouri Department of Conservation realizes that conserving soil is a key factor in successful management of forests, fish, and wildlife. If you have an interest in learning how you may better conserve the soil on your property, contact your local Department of Conservation office. Any one of us will be glad to assist you.

*“Mahan Creek watershed experienced a very heavy runoff period.”*

## Wildlife

## SNAKE BIT



**Dan Drees**  
**Wildlife Management**  
**Biologist**

Loud insistent barking erupted from the garage, as if our 16 year old beagle was trying to tell me something was terribly wrong. I had never heard Micky bark so emphatically.

It was a warm mid-summer evening and I had left the garage door open since I expected Susan to arrive home any minute with a load of groceries.

I turned on the garage light and opened the door from the kitchen. There on the welcome mat was a large, coiled, pygmy rattlesnake. Micky gave me a look that said, “What took you so long, this snake doesn’t belong in my garage!” I took a hiking stick near the door and slid the coiled rattler to the center of the garage to get it away from a gaggle of boots, tools, and recycling containers. Then Susan came driving up with the groceries.

I bounded into Susan’s parking spot and signaled her to stop. She looked at me like I was crazy and got out of her car. “What’s going on?” she asked. “Rattlesnake!” I replied. Susan’s facial expressions then went through a rapid assortment of surprise, intrigue, and concern for the dog she loved.

“Is Micky OK?” she asked. “I don’t know, I just got out here seconds ago.” I replied. Meanwhile Micky decided to show what a valuable guard dog he was by lunging at the rattler with a ferocious series of barks. The rattler kept its composure and remained tightly coiled but ready to strike.

As Susan restrained Micky, I grabbed a large bucket, laid it next to the rattler, and slide the coiled snake into the bucket. “What kind of rattler is it?” Susan asked. “A pygmy.” I replied. Susan said, “It has beautiful markings and color. I can see it rattling, but I can’t hear it at all!”

Susan studied the pygmy rattler a little longer and then turned all of her attention to Micky. She cradled him in her arms and looked him over closely to see if he had been snake-bit. Although Susan

found no evidence of harm to Micky, her intuition was that he got bit. I put a lid on the bucket and put it in the bed of my truck.

After the groceries were put away, we examined Micky again and found that his muzzle was starting to swell. Susan called our vet who informed her that he had no remedy for Micky. He pointed out that rattlers do not always inject venom and that the amount of venom can vary. He did not think that Micky was in danger but suggested that we watch him closely.

As its name implies, even a large pygmy rattlesnake is relatively small. The subspecies in Missouri is the Western pygmy rattlesnake (*Sistrurus miliarius streckeri*). The average specimen in Missouri is 15-20 inches long. Pygmy rattlers are also known locally as “ground rattlers”. They have very small venom sacks and no human deaths have ever been attributed to them.

Nevertheless, they do have the third strongest venom of the five venomous snake species in Missouri. Snake venom is calibrated by the amount of venom it takes to kill 50 lab mice out of 100. Consequently the lower the number is, the more powerful the venom.

Lethal dose necessary to kill 50 out of 100 lab mice (known as LD50).

- 1.64 milligrams from a timber rattlesnake
- 2.04 milligrams from a cottonmouth (alias water moccasin)
- 2.80 milligrams from a pygmy rattlesnake
- 2.90 milligrams from a massasauga rattlesnake (not known from the Ozarks)
- 10.90 milligrams from a copperhead



*“There on the welcome mat was a large, coiled, pygmy rattlesnake.”*

*“As its name implies, even a large pygmy rattlesnake is relatively small.”*

*“They have very small venom sacks and no human deaths have ever been attributed to them.”*

*"The rattles of the pygmy rattler are extremely small and very difficult to hear."*

Timber rattlesnakes and cottonmouths are the only venomous snakes in Missouri known to have killed anyone. Even then, death by these snakes is extremely rare. To minimize the chances of being bit, it is prudent to use a strong flashlight when walking outside after dark in the summer when our venomous snakes are most active.

It is also prudent not to hold a venomous snake or any unknown snake.

Micky recovered from his bite and I relocated the pygmy rattler that bit Micky to a remote portion of

Stegall Mountain. There it was likely to have fed on lizards, mice, and other small snakes. It may have also become food for a wide range of predators that can either evade or overcome the pygmy's bite.

Although I do not want to worry about my grandchildren encountering venomous snakes near our home, I am glad to know there are still wild places for them on our increasingly urbanized planet.

## Private Lands A Job Well Done Equals A Happy Landowner & Healthy Trees



*"The landowner just wants a good honest job that looks decent, and that's what we intend to do,"*

### Mike Gaskins Private Lands Conservationsist

Paying attention to the little things is sometimes all it takes to do a good job. The logging business is no exception. Fellers and skidder drivers that are conscientious about the timber resource are boosting both their business and their reputation. Word of mouth from satisfied landowners and foresters goes a long way in securing future logging jobs. Loggers that I work with on managed private sales take their jobs seriously as professionals. They have participated in the Missouri Forest Products Association (MFPA) logger training courses hosted by the Missouri Department of Conservation. In addition to valuable years of experience in the woods, loggers have used the MFPA courses to fine-tune their skills. "The landowner just wants a good honest job that looks decent, and that's what we intend to do," says Larry. Larry is one logger who goes out of his way to make customers happy.

While smaller operators like Larry often don't have the capital to pay as much for timber as larger busi-

nesses, smaller operators are able to deal with details, like shutting down during wet weather, which larger operators may overlook. Just as every wise small business owner knows, excellent service, niche marketing, and doing the small things that the big guys can't or won't do is the key to survival.

Landowners who I work with that have a good land stewardship ethic are more than willing to take a little less money on the stump for a job well done in their woods. One Shannon County landowner in particular was very encouraged by the reputation that Larry has earned: "If they'll do a good job, that's worth an awful lot."

A logger who knows what needs to be done and does it right the first time is a good friend to the landowner, forester, and the forest. Understanding what the customer wants and then being able to deliver is the key to success.

**The "Details" that indicate a well done logging job can best be summarized by the following photos on this and the opposite page:**

*"Loggers have used the MFPA courses to fine-tune their skills."*



*Above - Cutting stumps low to the ground can not only make or break the final log length, but also looks better. If high stumps are necessary, then cutting the high stump is just one of those finishing touches. Notice the well maintained skidding trail in the background.*



*Above - Use of an undesirable, cull, or already marked tree in the event that a pivot tree is needed while skidding logs. This undesirable black gum was used in this case.*

*Continued on page 5*





*Above - Directional felling with the use of the bore cutting method and felling wedges not only prevents damage to the remaining trees in the stand but also saves time in the long run.*



*Above - Preparing a felling bed is safer in that it prevents dangerous and unsightly spring poles. Slashing down tops when they are exceptionally high not only helps the tops to rot down quicker, but it also leaves a lot less of an ugly mess.*



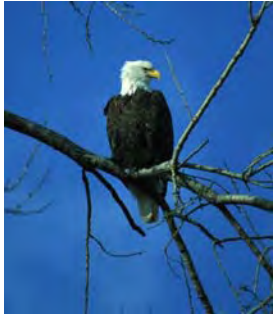
*Above - Taking the extra time and effort to winch a log some distance with a cable skidder rather than ride down trees or risk damaging good future crop trees maintains forest integrity.*

## Education

## EAGLES VISIT TWIN PINES EDUCATION CENTER



**Melanie Carden-Jessen**  
Education Center Manager



*Bald Eagle (Above)  
Golden Eagle (Below)*



Golden and bald eagles visited the Twin Pines Conservation Education Center on Friday, February 29th and thrilled school children and adults alike. Pam Herd, Education Director, and Paul Price, volunteer, both from Dickerson Park Zoo, gave three performances to more than three hundred people.

Mr. Price, who was involved with the Missouri Department of Conservation's bald eagle restoration efforts, gave the audience both the history of the eagle and general information regarding each of the types of eagles before bringing the eagles out for viewing. Golden eagles are larger than the bald eagles and more common in the western portion of Missouri, although they are seen occasionally in the Ozarks. Golden eagles are true eagles and are gorge eaters, meaning that when they find a large amount of meat they are likely to eat so much they can no longer fly. Sometimes gorged eagles are brought in by citizens who think they are injured when really they just need time to digest their meal.

Bald eagles were nearly wiped out in Missouri due to the use of the insecticide DDT. The chemical made its way into the food chain and accumulated in the fat of the top predators, including bald eagles. Accumulation of DDT in eagles caused the shells of their eggs to be so thin that the weight of the adult on the nest would crush the eggs. The use of DDT was banned in 1972 and restoration efforts for the bald eagle have been so successful that the bird was removed from the Federal endangered species list last year.

Like all raptors, both golden and bald eagles are federally protected and it is illegal to cause harm to or possess any portion of the birds including a feather without a special permit.

The Dickerson Park Zoo, located in Springfield Missouri, will be making another trip to Twin Pines in May bringing the programs Day Shift/ Night Shift and Garbage Man which include a peregrine falcon and turkey vulture. For more Twin Pines program information visit [www.missouriconservation.org](http://www.missouriconservation.org) or call 5733251381.

## Forestry

## OUR GRANDMOTHERS WERE WRONG



*"Tree growth can depend on soil fertility, tree species, tree size, or the number of trees per acre of land."*

**Steve Paes**  
Resource Forester

We have all heard the admonition "money does not grow on trees," probably from a grandmother teaching us that you have to work for what you want. But if you take it literally the old saying is not true. Money does grow on trees, and in more ways than one.

Your mind probably jumped to the obvious and traditional method of harvesting trees for lumber. Most of the tree species here in the Ozarks can be sold. If a tree is large enough, straight enough, and solid enough, it can be made into something and has a value. And each year more wood is grown on a tree, which adds to that value.

The amount of wood grown by a tree each year varies just like any investment. With other investments, growth may depend on how well you understand the stock market or the skill of your money manager. With trees, growth can depend on soil fertility, tree species, tree size, or the number of trees per acre of land. Just like the return on traditional investments, how well a tree is managed

has an effect on its growth.

For example, if you have a tree 12 inches in diameter with three 8 foot logs, and if you allow that tree to grow to 14 inches in diameter with four logs there is a 78% increase in the amount of wood. In an unmanaged forest it may take 15 years for that increase while a properly managed forest can produce the same increase in 10 years or less.

Another way money grows on trees is in the form of fruit. Every fall black walnut buying stations are set up all around the Ozarks and pickup trucks are constantly being unloaded. What most people don't know is that the fruit of many tree species, including oaks and hickories, also have a market. Learning how to "play" this market requires a little knowledge about how it works.

The market for oak and hickory seed is not as big as that for black walnut. Don't collect a lot of seeds without first talking to a buyer, such as a tree nursery. In addition, you need to be able to identify your tree species. If the buyer is wanting burr oak acorns, it's not a good investment of your time to

*Continued on page 7*



collected any one of the other 19 species of oak found in the Ozarks.

It is important to be in the right place at the right time. Acorn crops fluctuate from year to year and tree to tree. In order to maximize your profit for the amount of time you spend collecting seed, it is important to determine which species and individuals are having a good production year. It's also important to make sure your trees are in an accessible location.

A third, and relatively new, way money grows on trees is known as carbon credits, or carbon sequestration. In Europe, where the market has been established for several years, the sale of carbon credits is a \$4 billion dollar a year business. The

idea behind carbon credits is that businesses that put carbon in the atmosphere mitigate their pollution by paying someone to take it back out. One way to do that is by growing trees. It is not as simple as being paid to grow trees of course. It requires following a management plan and implementing management that increases the amount of tree growth. The payment is for the increase in growth.

So, as you can see, you grandmother wasn't exactly right—money CAN grow on trees. Traditional timber harvest, seed collection, and carbon sequestration are all ways that land owners can benefit financially from the forests they have on their property.



## Stream Team River Cleanups

**10th Annual Jacks Fork River - June 7** - Contact Ted or Pat Haviland 417/932-4363  
JacksForkST713@hotmail.com

**2nd Annual Upper Current River - June 14th** - Contact Jack or Mary Ficker 573/729-7065, jficker@wildblue.net



## Outdoor Calendar

### Hunting

Coyote  
Squirrel  
Deer

Firearms

### Opens

5/12/08  
5/24/08  
  
11/15/08

### Closes

3/31/09  
2/15/09  
  
to be  
announced

Groundhog

5/12/08

12/15/08

### Fishing

Black Bass (impoundments)  
Black Bass (streams, Current Jacks Fork and their tributaries)  
Trout Management Areas  
Trout Parks  
Nongame Fish Snagging

### Opens

Open All Year  
5/24/08  
  
Open All Year  
3/1/08  
3/15/08

### Closes

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2/29/09  
  
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10/31/08  
5/15/08

### Resident Hunting Permit Prices

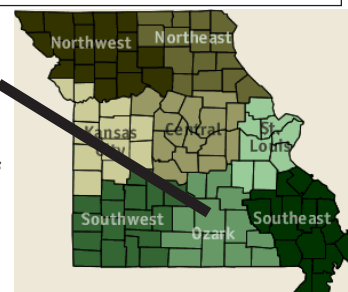
Hunting and Fishing --- \$19  
Small Game --- \$10  
Youth Deer and Turkey ---\$17  
Archery Hunting ---\$19  
Firearms Any Deer ---\$17  
Firearms First Bonus Deer --- \$7  
Firearms Second Bonus Deer --- \$7  
Fall Firearms Turkey ---\$13  
Spring Turkey --- \$17  
Trapping --- \$10

### Resident Fishing Permit Prices

Hunting and Fishing --- \$19  
Fishing --- \$12  
Trout --- \$7



We are on the web. To view this newsletter go to [www.mdc.mo.gov](http://www.mdc.mo.gov) and click on the Ozark portion of the map located at the bottom of web page.



## We're on the Web!

[WWW.MISSOURICONSERVATION.ORG](http://WWW.MISSOURICONSERVATION.ORG)



### MISSOURI DEPARTMENT OF CONSERVATION

#### **Ozark Regional Office**

P.O. Box 138  
551 Joe Jones Blvd.  
West Plains, MO 65775  
Phone: 417/256-7161  
Fax: 417/256-0429

#### **Central Office**

P.O. Box 180  
2901 W. Truman Blvd.  
Jefferson City, MO 65109  
Phone: 573/751-4115

#### **MDC Mission**

- > To protect and manage the fish, forest, and wildlife resources of the state,
- > To serve the public and facilitate their participation in resource management activities,
- > To provide opportunity for all citizens to use, enjoy, and learn about fish, forest, and wildlife resources.

#### **Mission of This Newsletter**

The mission of this newsletter is to share current information about conservation projects, issues, and programs and to develop working relationships with the citizens of Shannon, Carter, and Ripley Counties.

#### **Share Your Thoughts**

If there are any subjects you would like to see in the *Conservation Currents* please contact any employee listed below, or if you have any questions pertaining to the Wildlife Code please contact the Conservation Agent assigned to your county. County assignments and phone numbers are listed below.

#### **Operation Game Thief and Operation Forest Arson**

Sponsored by the Conservation Federation of Missouri, the Missouri Dept. of Conservation and the U.S. Forest Service

Phone: 1-800-392-1111

## CONTACT OFFICES AND NAMES

**If you have a question about any of the following topics, here are your contact professionals:**

Shannon Co. Field Office  
Eminence 573/226-3616



#### **Forestry**

Gary Gognat 573/226-3616  
Terry Thompson 573/226-3616  
Mike Bill 573/226-3616

#### **Private Land Management:**

Mike Gaskins 573/226-3241

#### **Conservation Agents:**

Brad Hadley 573/292-8540

#### **Wildlife**

Dan Drees 573/226-3616  
Rhonda Rimer 417/256-7161

#### **Fisheries**

Dave Mayers 417/256-7161

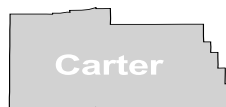
#### **Conservation Education**

Stephanie Rust 417/256-7161

#### **Outdoor Skills**

Larry Lindeman 417/256-7161

Carter Co. Field Office  
Van Buren 573/323-8515



#### **Forestry**

Mike Norris 573-323-8515

#### **Private Land Management:**

Don Foerster 573/996-3619

#### **Conservation Agents:**

Mark Wilcoxson 573/323-8523

#### **Wildlife**

Dan Drees 573/226-3616  
Rhonda Rimer 417/256-7161

#### **Fisheries**

Dave Mayers 417/256-7161

#### **Conservation Education**

Pat Holloway 573/840-9788

#### **Outdoor Skills**

Larry Lindeman 417/256-7161

Ripley Co. Field Office  
Doniphan 573/996-2557



#### **Forestry**

Steve Paes 573/996-2557

#### **Private Land Management:**

Don Foerster 573/996-3619

#### **Conservation Agents:**

Darren Killian 573/996-5984  
Jason Langston 573/996-2346

#### **Wildlife**

Dan Drees 573/226-3616  
Rhonda Rimer 417/256-7161

#### **Fisheries**

Dave Mayers 417/256-7161

#### **Conservation Education**

Pat Holloway 573/840-9788

#### **Outdoor Skills**

Larry Lindeman 417/256-7161